

## **WorldSID ATD – 50<sup>th</sup> Male RibEye™** **A Better Way to Measure Thorax Displacement**



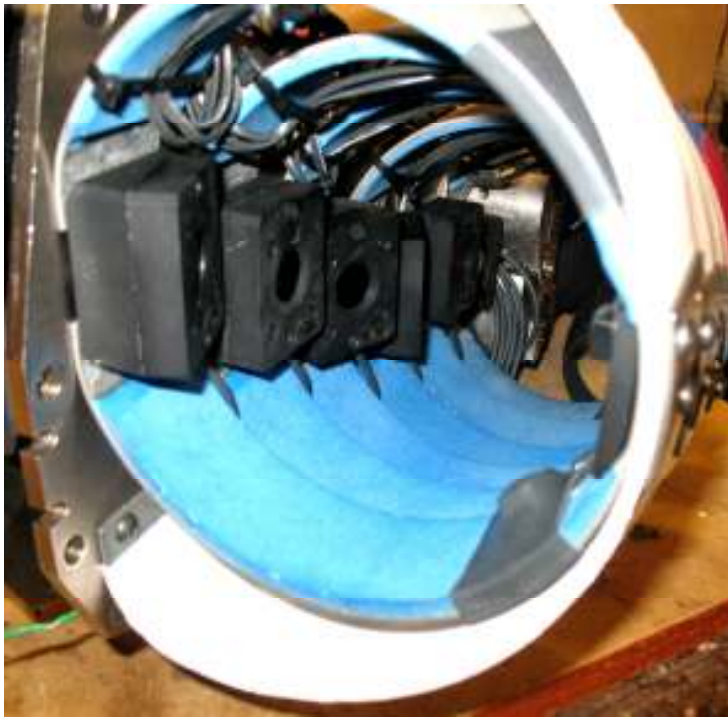
### **RibEye Advantages**

- Multiple point measurement:  
18 points @ 10 kHz sample rate,  
captures linear and oblique loads
- Six-LED version also available
- Multiple-axis: measures X, Y and Z  
positions for each LED
- Non-contact: no mechanical linkages  
between spine and ribs
- Mounts to existing holes in spine and  
ribs – no modifications to dummy
- Interfaces with existing data acquisition  
systems: open protocol for RibEye  
operation by DAS software
- Meets ISO 6487-2000 and  
SAE J211 specifications

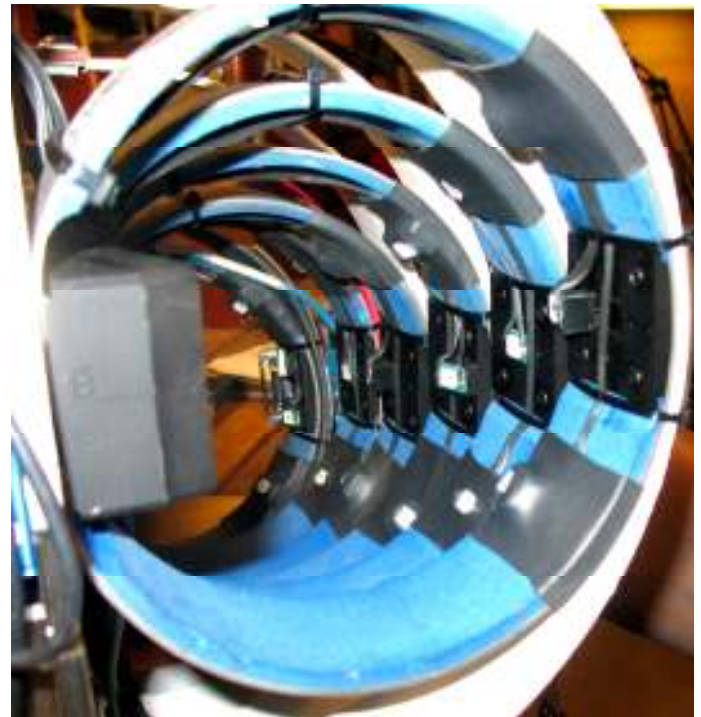
### **Measurement Capabilities**

- Accuracy  
For Y and Z data:  
 $\pm 0.2$  mm typical  
 $\pm 1$  mm max. error  
For X data, max. error  $< 1.5$  mm
- Range  
X axis:  $\pm 130$  mm fore/aft  
Y axis: 85 mm chest compression  
Z axis: 80 mm up, 50 mm down
- Acquisition time @ 10 kHz sample rate  
25,000 ms (25 seconds) in RAM  
1.7 seconds in flash memory
- Temperature range  
Operating,  $-18^{\circ}$ - $38^{\circ}$ C ( $0^{\circ}$ - $100^{\circ}$ F)  
Max. accuracy,  $18^{\circ}$ - $24^{\circ}$ C ( $65^{\circ}$ - $75^{\circ}$ F)





**RibEye Sensors**



**RibEye LEDs**

## More information

- PC-based control software exports data in Diadem, ISO, or CSV formats
- Power requirement:  
12-36 Volts DC  
8 W (idle)  
12 W (data acquisition)  
20 W (max.)
- U.S. Patent  
Number 7508530
- For more data, please see our website literature, including user's manuals and technical conference papers about third-party testing using the RibEye

[www.boxborosystems.com](http://www.boxborosystems.com)

RibEye Ver 3.2 Beta

Connect/Setup | Plot | Live Display | Export

RibEye Status: **Connected - Idle**

RibEye Type: WorldSID Male  
Serial Number: 112  
Calibration Date: 29 Nov 2012  
Firmware Version: WS50BS001

Connect to RibEye via: IP Address  
Ethernet | 192.168.0.237 | DISCONNECT  
Find RibEyes

RibEye Pointed Toward Dummy: Left Side  
ISO Test Object: 1 - Vehicle 1  
ISO Position: 1 - Front Left

RibEye Installed in ATD: wsid 50th #2  
Trigger Setting: Rising Edge

LED	RIB	POSITION	ISO CODES	X (mm)	Y (mm)	Z (mm)
1	1	REAR	1 1 SERR 00 RE WS DS XYZ	-58.8	-77.1	-52.3
2	1	MIDDLE	1 1 SERR 00 MI WS DS XYZ	-28.9	-92.3	-54.0
3	1	FRONT	1 1 SERR 00 FR WS DS XYZ	23.4	-77.8	-60.0
4	2	REAR	1 1 TRRI 01 RE WS DS XYZ	-45.2	-92.7	-2.0
5	2	MIDDLE	1 1 TRRI 01 MI WS DS XYZ	-1.5	-107.9	-1.0
6	2	FRONT	1 1 TRRI 01 FR WS DS XYZ	45.2	-94.2	-2.8

Buttons: ERASE MEMORY, DOWNLOAD DATA

Data Buffer Operation: Circular | Linear  
Data to collect after Trigger (ms): 2000

Data in RibEye (ms):  
Start Time: 200 | Stop Time: 1500  
Data To Download (ms):  
Start Time: .10 | Stop Time: 400

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